

Wild Times

A Free Publication of the Wyoming Game & Fish Department

Winter 2004

THE HABITAT CONNECTION: REPTILES AND AMPHIBIANS

CREEPY CRAWLERS



Bill Turner

The bullsnake can grow to six feet in length.

When you go outside on a cold day, you feel chilly, but your insides stay warm. This is because your body makes its own heat. You are warm-blooded. Such is not the case with reptiles and amphibians. They are cold-blooded. If they go outside on a cold day, their bodies soon cool down to the same temperature as the air.

Reptiles have dry, scaly skin. Some live on land, often in hot, dry places. Others live in or near water. Snakes, lizards and turtles are reptiles. Frogs, toads and salamanders are amphibians. Amphibians have moist, clammy skin. They usually live in water or in damp, cool places where their skin won't dry out.

We have fewer kinds of reptiles and amphibians here in Wyoming than most other states. Our cool climate and shortage of wet, swampy places make our state a less than perfect habitat for these creatures. But Wyoming does have some fascinating reptiles and amphibians, which we will learn about in this issue.



LuRay Parker

A spadefoot toad inflates its vocal sacs.



LuRay Parker

The rubber boa.

Box turtles live in eastern Wyoming.



LuRay Parker

FIELD Wildlife Journal

Bill Turner will never get bored being a herpetologist, a person who studies reptiles and amphibians. That's because there are so many different types to study, from crocodiles to tadpoles. That's why he became a herpetologist with the Wyoming Game and Fish Department. While there are no large reptiles like crocodiles in Wyoming, there are lots of others, like toads and frogs. Some of them, like the Wyoming toad, are endangered and especially need Bill's help.

Bill says one of the reasons amphibians are important is because they are sensitive to changes in the environment (such as air or water pollution), and often are one of the first indicators that something is wrong. As they disappear, biologists know there's something different about the air or water.

In the spring, Bill spends a lot of time looking for reptiles and amphibian tadpoles in wetlands. He identifies which type of tadpole he is looking at by its mouth parts. He also looks for adults along the shoreline. Once he finds them, he measures how much they weigh and the environment in which they are living, factors like temperature, humidity and wind speed. If it's a cold, windy day, reptiles and amphibians are less likely to be found.

At night, Bill listens for their calls, and maps out where he finds them by GPS (global positioning system) satellite technology. If you like frogs and toads and other reptiles and amphibians and want to be a herpetologist like Bill, you should check into getting a college degree in vertebrate zoology. That's what Bill and most other herpetologists have.



WGFD

Handling rattlesnakes is for experts.



LutKey Parker

A herpetologist examines a lizard.



WGFD

Rattlers inject venom through sharp fangs.

Toads do not cause warts, but poisons in their lumpy skin glands help protect them from predators.

LutKey Parker

WILDLIFE PROFILES

A playful fox pup, a graceful swan in the water—people often describe mammals and birds as cute or beautiful. Reptiles and amphibians often are described with terms like “icky” and “slimy”. Actually, these animals can be beautiful, too. Study the flashcards and get acquainted with four of Wyoming’s more charming reptiles and amphibians.



WILDLIFE PROFILES

Continued from Page 3

BOREAL TOAD

This warty fellow likes high altitudes. The boreal toad lives in ponds and soggy meadows in Wyoming's mountains. You can recognize it by the white or yellow stripe that runs down its back. The boreal toad is a slow-moving creature. It jumps like a frog but it doesn't jump very far. The boreal toad is out both during the day and at night, hunting for insects. As soon as things warm up a bit in spring, the boreal toad comes out to breed. It hibernates in winter.

SOFT-SHELLED TURTLE

Most turtles have hard shells, but the soft-shelled turtle, like its name suggests, has a flexible shell that feels like leather or plastic. These turtles live in lakes and rivers in eastern Wyoming. They like to come out of the water to sun themselves on sandy banks. But they always are watching for danger. When frightened, they move like lightning and scramble back into the water. Soft-shelled turtles grow large. Their shells may be 1 1/2 feet long; they also have long necks. They are foul-tempered and bite viciously when captured.

TIGER SALAMANDER

Salamanders look like lizards, but they are really amphibians with moist skins. The tiger salamander is Wyoming's only type of salamander. It comes in different color patterns. This predator eats other small water creatures. It moves very slowly and is often caught by pelicans, herons and other birds. The tiger salamander often migrates across land. When young, it breathes through gills like a fish. Adult salamanders usually lose the gills. Tiger salamanders sometimes live in underground burrows dug by small mammals.

BULLSNAKE

The bullsnake can grow to 6 feet in length, making it Wyoming's biggest snake. It reaches this large size on a diet of rabbits, rats and gophers. It squeezes its prey to death. Bullsnares also eat small birds and eggs. Bullsnares are valuable because they kill a lot of unwanted rodents around farm buildings. If you corner a bullsnake, it does an imitation of a rattlesnake, coiling up and shaking its tail. It also will lunge at you. However, it does not have rattles on its tail, and its teeth are tiny and harmless.

OUR Wildlife Heritage

BITERS

When the mountain men and pioneers were making their way across what is now Wyoming in the 1800s, a few were undoubtedly bitten by rattlesnakes. Without modern medical treatment, some of them probably died or suffered crippling injuries. The old method for treating snakebite was to make a cut between the puncture wounds and suck out the venom. Experts now say that is dangerous. The best thing to do is to stay calm and get medical help quickly.



The prairie rattlesnake warns intruders with its rattle.



The leopard frog is so called for its spots.



Toads are getting scarcer.

SCARCE AMPHIBIANS

For more than ten years now, frogs, toads and salamanders have been dwindling in number. It's happening all over the world. In many ponds where there used to be thousands of amphibians, you can hardly find any now. Nobody knows exactly why. Scientists have some ideas about it. They think our environment may be changing in ways we don't fully understand.



Around Wyoming

NOISEMAKERS

One of the surest signs of spring in Wyoming is the calling of chorus frogs. These tiny frogs make a lot of noise and can be heard nearly a mile away if it is quiet outside. You can find them in roadside pools or small ponds. Singing is part of their breeding ritual. Next April and May, listen for chorus frogs on warm evenings.

The horned toad is our official state reptile. When frightened, it can squirt a thin stream of blood from its eyes.



Ron Maier

Chorus frogs

STATE REPTILE

The horned toad, a Wyoming native, is our official state reptile. It is not really a toad but a lizard. Horned toad is just a nickname for its official name: eastern short-horned lizard. Horned toads are especially fond of ants. When frightened, they can squirt a thin stream of blood from their eyes. These reptiles live all over Wyoming in prairies and sagebrush. They are one of the slowest moving lizards.

WYOMING TOAD

Unlike horned toads, Wyoming toads are true amphibians. But, although they look like most other kinds of toads, they are very special animals. They live in a swampy area near Laramie and nowhere else in the world. So few Wyoming toads are left that they are now protected by law. Wyoming toads need water but they also like to dig burrows in loose soil.



Bill Turner

Horned toad



Luke Parker

Wyoming toad

Outdoor Classroom

GROW YOUR OWN FROGS

Frogs lay large masses of jelly-like eggs in water. The eggs hatch into young frogs, called tadpoles or polliwogs. They look like little fish with round heads. Next spring or early summer, look for tadpoles in ditches and ponds. As tadpoles develop, their tails begin to shrink and they grow legs.

For information on raising tadpoles, see this Web site: allaboutfrogs.org/info/tadpoles/

VERY OLD REPTILES

Dinosaurs were the biggest reptiles that ever lived. Wyoming had many kinds of dinosaurs. But that was millions of years ago. Visit the Geological Museum on the University of Wyoming campus in Laramie to see what Wyoming reptiles looked like in the distant past. The museum is open every day except holidays, and it's free.



Tadpoles, above.



This young salamander will lose its gills when it becomes an adult.

LuRay Parker



▶ TEST YOUR KNOWLEDGE ◀

SLITHERY QUESTIONS

1. We see mammals and birds outside all winter—why not reptiles and amphibians?
2. Many lizards are very fast runners. Do you think it would be easier to catch one on a hot day or on a cool day? Why?

MATCHING

Find the best match for each item in column A with one from column B.

COLUMN A

1. herpetologist
2. ancient reptile
3. rare and protected by law
4. tadpole
5. Wyoming's state reptile

COLUMN B

- A. horned toad
- B. young frog
- C. reptile expert
- D. dinosaur
- E. Wyoming toad



(Answers: 1-C, 2-D, 3-E, 4-B, 5-A)

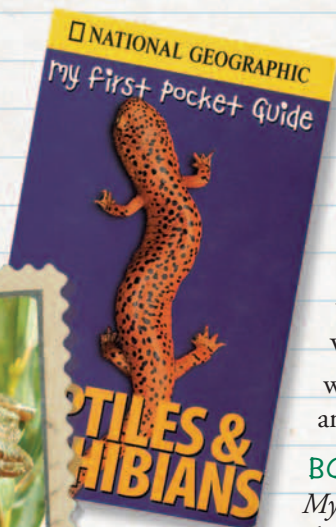


LuRoy Parker



LuRoy Parker

Garter snake



▶ LEARNING LINKS ◀

WEB SITES:

Visit the Frogland web site at: allaboutfrogs.org

Visit the Wisconsin Department of Natural Resources Web site at: www.dnr.state.wi.us/eeek/ this will take you to a site loaded with reptiles and amphibians. You can even listen to frogs singing.

BOOKS:

My First Pocket Guide – Reptiles & Amphibians (National Geographic) shows where to find different kinds of reptiles and amphibians and how to identify them. Accompanying maps show where each occurs in the United States. Ask your librarian about this and other books on reptiles and amphibians.

Volume 3, No. 2

Winter 2004

Editor: David J. Rippe

Education Support: Janet Milek

Publications Support: Tiffany Meredith

Graphic Design: Black Dog Design

Wyoming Wildlife's Wild Times is published four times during the school year (October, December, February and April). Please direct inquiries and changes of address to Wild Times, Education Branch, 5400 Bishop Blvd., Cheyenne, WY 82006; (307) 777-4538.

Printed in the USA. Copyright 2003 by the Wyoming Game and Fish Department. All rights reserved.

The Wyoming Game and Fish Department receives federal financial assistance from the U.S. Fish and Wildlife Service. Under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972, and the U.S. Department of Interior and its bureaus, discrimination is prohibited on the basis of race, color, national origin, age, disability or sex (in educational programs). If you believe you have been discriminated against in any program, activity or facility, or if you desire information, please write to: U.S. Fish and Wildlife Service, Office of Diversity and Civil Rights Programs-External Programs, 4040 North Fairfax Drive, Suite 30, Arlington, VA 22203.